

Race to Save the Euro Would Follow 'Grexit'

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22 June 2012 - Following the re-run of the Greek parliamentary elections, we now have a New Democracy-led coalition government committed to implementing much of the existing troika programme, with some leniency likely to be granted on the timing and dosage of fiscal austerity. This greatly lessens the risk of early Grexit as it is likely the minimum demands for relaxation of fiscal austerity by the new Greek government will not exceed the maximum fiscal austerity concessions Germany and the other core euro area (EA) member states are willing to make.

Some relaxation on the timing of austerity, some limited early disbursement of funds to pay for essential public goods and services, and some token pro-growth gestures courtesy of the European Investment Bank and EU Structural and Cohesion funds will most likely keep Greece in the EA for the time being. However, we consider it highly unlikely that Greece will comply sufficiently with even the 'lite' fiscal austerity conditionality, let alone with structural reform conditionality, including privatisation targets, which are unlikely to be relaxed. Political opposition to both austerity and reform are now stronger in Greece than ever before. So is resistance to bailouts in the core EA member states. The troika may forgive a Greek failure in the September progress assessment, but is unlikely to tolerate another failure to comply on all fronts by the December assessment.

Grexit may well be triggered by a troika review declaring Greece wilfully non-compliant with the conditionality of its programme, stopping the disbursements to the Greek sovereign. In this scenario, Greece defaults and the Eurosystem and the Greek ELA (Emergency Liquidity Assistance provided by the Greek Central Bank) stop funding the Greek banks. At that point Greece would exit the euro area, following the imposition of capital controls, foreign exchange controls, restrictions on deposit withdrawals and a temporary suspension of the Schengen Agreement.

It is possible that Greece will remain a member of the euro area, but this would, in our view, require two highly unlikely developments. Greece would have to transform its institutional and political delivery capacity and implement far-reaching structural reforms, including privatisation, as well as 'lite' austerity which would be required even with material concessions on the timing and intensity of fiscal austerity by the troika. The troika, and in particular the other EA member states, would have to accept upfront that no official creditor other than the IMF, which is protected by its preferred creditor status, would make good on its claims on the Greek sovereign. Thus, in addition to the roughly €55bn worth of remaining private sector exposure to the Greek sovereign, about €200bn worth of

official exposure through the ECB, the Greek Loan Facility and the EFSF would have to be written off or de-facto converted into zero coupon perpetuities. In addition to writing off the exposure of the Greek sovereign to official creditors other than the IMF, these same official creditors would have to agree to continue to fund most of the remaining and continuing deficit of the Greek sovereign. Likewise, the ECB would have to agree to continue to fund the Greek banks following the second Greek sovereign default, both through the Eurosystem's facilities and through the Greek ELA. It is possible that these two developments will indeed occur, but highly unlikely.

Grexit is more likely to be a result of the Spanish and Italian sovereigns finding themselves at acute risk of being frozen out of the private funding markets and in need of financial rescues. It is highly probable that the core EA countries will refuse to take on significant additional exposures to Spain (over and above the €100bn already committed for the Spanish banking sector bailout) and/or any significant exposure to Italy unless it can be established unambiguously that a wilfully and persistently non-compliant programme beneficiary will be denied further funding. Therefore, with the increased likelihood that Spain will have to request a further troika programme with conditionality imposed on the sovereign in the areas of fiscal austerity and structural reform, and that Italy will also be forced to seek external funding assistance from the troika, Grexit has all but become necessary to establish the credibility of the troika with regards to conditionality enforcement.

It should be remembered that probably the greatest fear of Germany, the Netherlands, Finland, Luxembourg, Austria and Slovakia is not the complete collapse of the EA but the creation of an open-ended, uncapped transfer union without a compensating surrender of national fiscal sovereignty - and indeed of wider national economic sovereignty in the areas of structural reform and privatisation - to the supranational European level. Those who expect or hope for large-scale ex-ante sovereign debt mutualisation or for an open-ended, uncapped 'transfer Europe' without a matching (and preferably prior) institutionalised, treaty-based transfer of national economic sovereignty to the supranational level, legitimised through the appropriate representative national processes (e.g. parliamentary approval in all EA nations, and referenda, either binding or advisory, in a number of EA member states) are certain to be disappointed. Indeed, even a symmetric fiscal union is something for the next generation, not for this crisis. The unavoidable consequence of this would be that many creditors of periphery sovereigns and many unsecured debt holders of weak banks in countries with weak sovereigns would take material losses as fiscally unsustainable sovereigns and near-/insolvent banks are restructured.

Grexit would likely create real deprivation in Greece, and lead to social and political instability. We are likely to see significant evidence of this even before Grexit takes place. The damage can be limited (but not prevented) by ensuring that Greece remains a member of the EU even after it exits the EA. As a continuing member of the EU, Greece would be able to benefit from troika financial assistance (through the balance-of-payments facility of the EU and the IMF Standby Program) - a path trodden since 2008 by Latvia, Romania and Hungary. It would also be able to continue to access EU Structural and Cohesion

Funds and to benefit from EIB investment programmes on its territory. We believe that continued EU membership of Greece after Grexit would be the most likely outcome. Should Greece also exit the EU, the remaining 26-member EU is at risk of having a failing state on its South-Eastern border.

What would Grexit mean for the rest of the euro area?

The direct impact of Greek exit on the rest of the EA, the EU and the rest of the world through trade and financial linkages would be minor. Greece accounts for less than two percent of EA GDP and since the beginning of the Greek sovereign crisis at the end of 2009, the exposure of the private sector in the rest of the EA and EU to the Greek sovereign and the Greek banks has diminished materially. Quite a bit of that exposure has, of course, simply been shifted to official core EA creditors, including the ECB, the Greek Loan Facility and the EFSF. The limited ex-post debt mutualisation that this implies, if and when the Greek sovereign defaults again on most of its remaining debt, is less damaging in the short run than would have been the case had this Greek sovereign exposure remained on the books of the original private creditors. The longer-term costs of permitting private creditors to shift their exposure to the core EA tax payers, allowing for the perverse incentive effects (moral hazard and its many close relatives) of this ex-post mutualisation of Greek sovereign debt could, however, easily dwarf the short-term benefits. The balance of costs and benefits depends, of course, on the discount rate of those making the assessment.

The only immediate risk we see from Grexit for the rest of the EA is through exit fear contagion. Grexit means that an unbreakable commitment will have been broken - the irrevocable membership of the Euro Club will have been revoked. Inevitably, both the credibility of the first country to exit and the credibility of the remaining members of the euro area will be damaged. Fear that other exits will occur may take hold. Exit means three things: introduction of a new currency (the orue, say); redenomination of existing contracts and securities under domestic law into the new currency; and a sharp depreciation of the orue. Fearing exit, the markets would impose a sudden funding stop on all sectors in any economy perceived by the markets to be at material risk of exit after Greece. A deposit run would be the visible manifestation of this sudden stop. The failure of non-deposit funding to enter the country deemed at risk of exit would be less visible but equally damaging.

Ring-fencing the remaining euro area member states after Grexit

The ECB, supported to a limited extent by the resources of the troika, has the resources to keep the at-risk sovereigns and banking sectors adequately funded until the markets are convinced that a country that is adequately compliant with programme conditionality and wants to stay in the euro area will not be forced out by a sudden stop of market funding. After all, the funding stop imposed on a country deemed likely by the markets to exit from the euro area is in one key

respect quite unlike the classic emerging markets sudden funding stop imposed on a country deemed at material risk of exiting a currency board or some other conventional fixed exchange rate regime. In the emerging markets case, the central bank of the country that is under attack cannot credibly ring-fence the sovereign, the banks and the rest of the private sector. No firewall can be credible because the central bank will sooner or later run out of reserves. This is not the case for a euro area member state threatened with a sudden funding stop because of exit fear contagion. The scarce resource here is euro liquidity - a resource the ECB can provide instantaneously in any amount required (see Buiter and Rahbari (2012a)).

The ECB is likely to support its market actions to prevent forced exit from the euro area with rhetoric or open mouth operations, thus enhancing their effectiveness. In the past, the market interventions of the ECB have had limited effectiveness because the central bank was unable to signal or reveal the true intent of its interventions. This was true for the ECB's interventions in the secondary markets, through the outright purchase of sovereign debt in the secondary markets through the Securities Markets Programme (SMP). It was also true for its indirect interventions in the primary sovereign debt markets, which involved the Eurosystem funding euro area banks on highly subsidised terms through the LTROs of December 2011 and February 2012, with the domestic authorities in countries like Spain and Italy using their influence over the banks in their jurisdictions to compel the purchase of sovereign debt in the primary markets at yields well below what these banks would have demanded if they had not been subjected to financial repression (see Buiter and Rahbari (2012b)).

The reason for the reluctance of the ECB to put its mouth where its money is, lies in its perception that acting as lender of last resort for sovereigns is not part of its legitimate mandate. A fortiori, purchasing the debt of most likely insolvent sovereigns, as it started doing in May 2010 when it initiated secondary market purchases of Greek sovereign debt under the SMP, does not fit the ECB's interpretation of its mandate. It is true that funding most likely insolvent sovereigns is not part of the central banks' mandate in a well-designed monetary system. We believe the Eurosystem, however, is badly designed and the ECB is effectively forced into these extraordinary measures by the unwillingness/inability of the political authorities in the euro area to correct the system's flaws and to use fiscal resources (EFSF/EFSM/ESM) to support weak sovereigns. This then puts the Eurosystem in the unenviable position of having to choose between disorderly, costly and in some cases fundamentally unwarranted sovereign defaults and using its quasi-fiscal resources to prop up these fiscally challenged sovereigns.

Unwilling to admit that it lost the game of chicken with the euro area political authorities, it appears the ECB has felt unable to set publicly a ceiling for the secondary market yield on any euro area sovereign's debt and to threaten the full use of its unlimited euro resources to enforce that ceiling. It would be, however, more likely to speak out following Grexit, when exit-fear contagion threatens to drive the monetary union sovereigns out that are troika programme conditionality-compliant or periphery sovereigns that abide by their commitments under the Excessive Deficits Procedure of the Stability and Growth Pact or the Fiscal Compact. They would, however, only do so with conviction if the EA political

authorities make a clear and unambiguous commitment, including a firm timetable, to minimal fiscal union and banking union. This should greatly enhance the effectiveness of the ECB's market interventions and limit the scale of the purchases necessary to achieve any given yield target for sovereign debt.

As long as the ECB is convinced that it is just illiquidity that would drive the country under attack out of the Eurozone, and not insolvency of the sovereign or of the consolidated sovereign and banking sectors, we believe that it would be willing to provide the liquidity required to beat off any market attack. For the ECB to make this determination, the political leadership of the EU and of the euro area will have to commit itself credibly to significant further institution building and economic integration, albeit well short of what those who advocate full fiscal and political union for the euro area appear to have in mind. Because full fiscal union (sovereign debt mutualisation, open-ended and uncapped cross-border transfers and redistribution, with a matching surrender of national sovereignty over fiscal affairs and its transfer to the supranational or federal level) is for political reasons highly unlikely/near impossible for the foreseeable future, it is fortunate that something well short of full fiscal union is necessary and most likely sufficient to support a viable monetary union. What is required to enable the euro area to survive is progress without deliberate haste towards banking union and minimal fiscal union.

The End Game for the euro area

There is a material risk, if current procrastination and policy paralysis continue to prevail, that the end game for the EA could be an onion-like unpeeling and unravelling with Grexit being followed by an exit of the entire periphery and some members of the 'soft core', possibly including France. Survival to fight another crisis will require at least the following: an enhanced sovereign liquidity facility, banking union and sovereign debt and bank debt restructuring with only limited ex-post sovereign debt mutualisation.

No Fiscal Union

Fiscal union, even just in the sense of a political commitment to the pooling (mutualisation) of sovereign risk and the willingness to engage in uncapped and open-ended budgetary transfers between EA member states, is not relevant to the resolution of this crisis. One-sided fiscal union (mutualisation and transfers alone) would surely cause Germany and the remaining core EA member states to exit the monetary union.

This is not the conclusion reached by those who argue that Greece is small and could easily be supported by Germany and the other would-be donors in the transfer union. However, even if most of the Greek sovereign debt (about €300bn) is a write-off regardless of how the crisis plays out, the open-ended commitment to fund transfers sufficient to cover at least the primary (non-interest) sovereign deficit, and quite possibly the primary external deficit of the Greek nation as a whole for an indefinite period, would result in a formidable burden. In addition, bailing out Greece in an open-ended manner would destroy any incentives for the

other borrowers (actual and would-be) to relax on their adjustment, reform and austerity efforts. The net present value of supporting the Greek, Portuguese, Irish, Spanish, Italian etc. economies when there is no incentive for the beneficiaries of this sovereign welfare state to work themselves back to budgetary health, is huge. It certainly exceeds the tolerance threshold of the euro area core member states. As noted earlier, the core EA member states' leaders certainly fear the consequences of a wholesale EA breakup. But they, and their electorates, fear even more the prospect of becoming the donor of first and last resort to the fiscally and competitively challenged members of the EA.

Germany, in particular, knows what it is like to have an open-ended financial black hole to fill. Following German unification in 1990, net transfers to Germany's eastern Lander were estimated in 2004 to be about 4 percent of total German GDP annually (Jansen (2004)) and have not come down much from that level since then. Doubts about the effectiveness of this assistance in promoting growth or standards of living in the former DDR are widespread (see e.g. New York Times (2012)). Regardless of their effectiveness, the sense of national solidarity that made the transfers to the former DDR politically possible is absent in the EA with regards to cross-border transfers.

Even within some established nation states in western Europe, the willingness to engage in interregional redistribution appears to be diminishing. The proportion of the English population in favour of Scottish independence is above the proportion of the Scottish population supporting Scottish independence (Note 1). The likely reason is the perception in England that Scotland gets too favourable a financial deal in the Union. In Belgium, the willingness of rich Flanders to make continued transfers to poorer Wallonia appears to be diminishing to the point that dissolution of the Belgian federation is not inconceivable. In Spain, rich Catalonia seems to be objecting ever more vocally to continued net transfers to the poorer autonomous regions. The same is true for northern Italy and its attitude towards continued financial transfers to the Mezzogiorno. Large-scale cross-border redistribution is not politically legitimate in the EU. Any government that proposed it (on the net donor side) would likely lose office. It is worth noting that the entire EU budget is less than 1.2 percent of EU GDP, and that almost half of this is spent on agriculture.

The examples of established EU member states where large-scale interregional redistribution is being questioned support the view that even a symmetric fiscal union, where comprehensive debt mutualisation and uncapped and open-ended transfers are matched by a transfer of fiscal sovereignty to the federal or central government level, will not necessarily support the kind of large-scale cross-border redistribution that its advocates support. In any case, the necessary transfer of political authority and fiscal sovereignty to the supranational European level is most unlikely to be politically acceptable at this point even in the countries that would be financial beneficiaries. Fiscal union now and for the foreseeable future, that is, for the duration of this crisis and its aftermath, is very unlikely.

Quasi-fiscal union, with the ECB/Eurosystem buying up most of the outstanding stock of periphery public debt and perhaps also continuing to fund part of the ongoing government deficit, is also politically unacceptable in the core EA

member states and to the ECB itself. Small scale sovereign debt purchases (through the SMP) and the assumption of exposure by the Eurosystem to periphery sovereigns (through loans to periphery banks that offer as collateral debt issued or guaranteed by periphery sovereigns) will continue, but not on a scale sufficient to negate the need for both significant sovereign and bank debt restructuring and continued austerity in the periphery.

ERP-ERF: Still several political bridges too far

Even the capped and time-limited euro area public debt mutualisation scheme proposal by the German Sachverständigenrat (see Council of Economic Experts (2011)) is both more than is required for a proper functioning of the euro area and much more than is likely to be politically acceptable in both the periphery and the core. On the plus side, the European Redemption Pact (ERP) proposal involves a capped amount of debt (the excess over 60 percent of GDP) and is of finite duration: a transition period which could last several years for the roll-in of national debt in excess of 60 percent of GDP into a European Redemption Fund (ERF) and a 25-year redemption horizon once the ERF is fully established. This would overcome some likely constitutional objections from the German constitutional court and possibly other national constitutional courts. Despite this, we don't anticipate any programme of this ilk will be implemented.

There are four reasons for this. First, the ERF (whose debt would be jointly and severally guaranteed by all participants) would be large. It would represent, in our view, too large an increase in the exposure of the fiscally and competitively strong countries to the periphery to avoid likely insurmountable political obstacles and constitutional court objections in Germany and elsewhere - size matters. The euro area general government gross debt to annual GDP ratio at the end of 2011 was 87.2 percent and the debt stock itself was €8.2 trillion. The excess over 60 percent of 2011 GDP is therefore €2.2 trillion, close to the €2.3 trillion size the Council of Economic Experts predicts for the ERF at the end of the roll-in period.

Second, except for Luxembourg, Finland, Estonia, Slovakia and Slovenia, all EU member states, including notably Germany, France, Austria and the Netherlands have gross general government debt to GDP ratios well in excess of 60 percent (see Figure 1)

Figure 1. General Government Debt, % of GDP

	2000	2007	2008	2009	2010	2011
EA17	69.2	66.3	70.1	79.9	85.3	87.2
Austria	66.2	60.2	63.8	69.5	71.9	72.2
Belgium	107.8	84.1	89.3	95.8	96	98
France	57.3	64.2	68.2	79.2	82.3	85.8
Germany	60.2	65.2	66.7	74.4	83	81.2
Italy	108.5	103.1	105.7	116	118.6	120.1
Luxembourg	6.2	6.7	13.7	14.8	19.1	18.2
Netherlands	53.8	45.3	58.5	60.8	62.9	65.2
Finland	43.8	35.2	33.9	43.5	48.4	48.6
Greece	103.4	107.4	113	129.4	145	165.3
Ireland	35.1	24.8	44.2	65.1	92.5	108.2
Malta	54.9	62.3	62.3	68.1	69.4	72

Portugal	50.4	68.3	71.6	83.1	93.3	107.8
Spain	59.4	36.3	40.2	53.9	61.2	68.5
Estonia	5.1	3.7	4.5	7.2	6.7	6
Cyprus	59.6	58.8	48.9	58.5	61.5	71.6
Slovakia	50.3	29.6	27.9	35.6	41.1	43.3
Slovenia	26.3	23.1	21.9	35.3	38.8	47.6

Source: Eurostat

To implement the ERP proposal, all countries with debt in excess of 60 percent of GDP would effectively come under programmes and be subject to strict conditionality. The Council of Economic Experts propose specifically that debt brakes be introduced in the participants' national constitutions to prevent the debt not refinanced via the ERF from rising above the 60 percent of GDP threshold again. These debt brakes would have to be serious, unlike the past and current German constitutional debt brakes, which were fully consistent with the German debt to GDP ratio rising since the start of the Eurozone in 2000, from 60 percent to over 81 percent by 2011. These new, more effective constitutional debt brakes would have to be monitored and enforced by some external entity (presumably the European Commission, the ECB or the IMF, or some troika-like combination of the three). The external enforcement entity (EEE) would have to be able to stop a sovereign from borrowing if, in the view of the EEE, such borrowing would violate the rules of the EFP. That would be a difficult sell in Berlin, Paris, Vienna, and the Hague.

Third, each country has to guarantee its debt in the ERF with a 20 percent deposit (presumably by paying into some form of escrow account) in the form of gold and foreign exchange reserves. If a Redemption Pact participant failed to honour its commitments, that participant would forfeit the gold and foreign exchange it had deposited. This alone makes the plan a non-starter in Portugal, Spain, Italy and Germany, where the Bundesbank is the jealous custodian of the nation's gold and foreign exchange reserves. It seems inconceivable that any EA member state would agree to its gold and foreign exchange reserves being held hostage in this manner.

Fourth, in addition to the gold and foreign exchange collateral deposited with the ERF, compliance with the rules of the Fund would be encouraged by mandating specific tax provisions that would earmark revenues for servicing the debt (Note 2). Consider the (unlikely) case where the ERF has been activated with its full complement of gold and foreign exchange collateral escrow accounts. This collateral would be forfeited should a participating country divert its earmarked revenues to other uses. But once the collateral had been seized, the country in question still has debt in the Fund that could be worth up to five times the forfeited collateral. It could still be worth a participating country's while to renege on its commitment to earmark revenues. Indeed, a selfish economically rational country would renege on the joint and several guarantee and walk away from its liabilities in the ERF. To avoid this problem, a country that is not in compliance with the rules of the ERF (after the roll-in period) would have to be expelled from the Fund and its debt would have to cease to be jointly and severally guaranteed.

But that would undermine the value of the joint and several guarantee.

Even if such blatant violation of the letter and spirit of the scheme is somehow avoided, we find it extremely difficult to envisage circumstances under which ERF conditionality could be enforced against the larger participating countries, especially France and Germany. We should remember that the original Stability and Growth Pact was killed off not by the nations of the Club Med, but by Germany and France, in 2003, when the European Commission recommended the application of the Excessive Deficits Procedure sanctions to France and Germany and the two countries jointly vetoed the Commission's proposal. We doubt things would be materially different this time.

Banking Union and Minimal Fiscal Europe

The end game for the euro area, if the political will to keep it alive is strong enough, is likely to be a 16-member euro area, with banking union and the minimal fiscal Europe necessary to operate a monetary union when there is no full fiscal union.

Minimal fiscal Europe would consist of a larger and steadily further enhanced ESM liquidity facility (moving from its current €500bn limit to €750bn or €1000bn when Spain and Italy are on full programmes and ultimately to levels well north of €2trn) and a sovereign debt restructuring mechanism (SDRM) with both market-based/contractual and statutory dimensions. The ESM would be given eligible counterparty status for repos with the Eurosystem, subject to joint and several guarantees by the EA member states. There would be some limited ex-post mutualisation of sovereign debt (Greece is clearly not going to make good on its exposure - around €200bn - to official creditors, with the possible exception of the IMF, and there is likely to be further sovereign debt restructuring involving other countries as well). The EU/EA liquidity facilities or mutual insurance facilities (EFSF/EFSM/ESM/Eurosystem) would, when the insured-against event materialises, turn ex-post into redistribution mechanisms, but on a limited scale.

Sovereign debt restructuring through the SDRM would become a recurrent feature of the EA sovereign landscape, with even the fiscally strongest of the periphery member states at material risk of sovereign default. The Spanish sovereign is put at risk by the core EA member states' insistence that any financial assistance to Spanish banks go through the Spanish sovereign, thus becoming a Spanish sovereign exposure. The Italian sovereign is put at risk, despite its rather strong primary balance position, by the size of the general government debt stock, by Italy's poor growth prospects and by a dysfunctional political system that makes it very difficult to address the root causes of fiscal unsustainability and low growth.

Banking union aims to sever the harmful umbilical cord between national sovereigns and the banks in their jurisdictions. It would consist of the following: (1) an EA-wide supervisor-regulator for cross-border systemically important banks. Unlike the ECB today, this supervisor-regulator should be formally and substantively accountable to the euro area citizens and their elected representatives, the European Parliament. (2) An EA-wide deposit guarantee

scheme and fund that (after Grexit) also insures against redenomination risk. The fund would be created by the mutualisation of the existing national funds. (3) An EA-wide or EU-wide bank resolution regime and fund. The resolution regime would be able to bail in unsecured bank creditors. (4) An EA-wide guarantee fund for new issuance of term unsecured bank debt. This will be essential if, as we anticipate, there will be significant restructuring of unsecured bank debt in the euro area, starting with subordinated debt but probably reaching longer-maturity senior unsecured debt. This would, for a number of years, make unsecured term funding by banks virtually impossible.

A roadmap towards banking union will likely be announced at the EU Summit on 28-29 June. It better be a credible path, with a time table that is both ambitious and credible. But in any case, implementation is the hard part, and time is of the essence.

References

Note 1: Earmarking revenues is in general a bad idea from the point of view of economic efficiency and overall budgetary control, although it is often politically popular. Earmarking revenues in this way would, of course, subordinate all debt not in the ERF.

Note 2: As reported by the Sunday Telegraph newspaper on 26 November 2006, an ICM opinion poll for The Sunday Telegraph had found that 52 percent of Scots polled favoured independence for Scotland, while 59 percent of the English polled wanted Scotland to go it alone,
<http://www.telegraph.co.uk/news/uknews/1535193/Britain-wants-UK-break-up-poll-shows.html>.

Buiter, Willem H. and Ebrahim Rahbari (2012a), "Looking into the deep pockets of the ECB", *Citi Economics, Global Economics View*, 27 February 2012.

Buiter, Willem H. and Ebrahim Rahbari (2012b), "[The ECB as Lender of Last Resort for Sovereigns in the Euro Area](#)", CEPR Discussion Paper No. 8974, May 2012, forthcoming in the *Journal of Common Market Studies*.

German Council of Economic Experts (2011), A European Redemption Pact,
<http://www.sachverstaendigenrat-wirtschaft.de/schuldentilgungspakt.html?&L=1>

Jansen, Heinz (2004), "Transfers to Germany's eastern Länder: a necessary price for convergence or a permanent drag?", ECFIN Country Focus, Volume 1, Issue 16, 8/10/2004.
http://ec.europa.eu/economy_finance/publications/publication1437_en.pdf

New York Times (2012), "Germany Looks to Its Own Costly Reunification in Resisting Stimulus for Greece", May 25,
<http://www.nytimes.com/2012/05/26/world/europe/german-reunification-pains-inform-stance-on-greece.html?pagewanted=all>

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